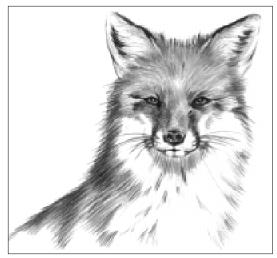




United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

December 1997



Red fox

# Benefits of Wildlife Services

The Wildlife Services (WS) program, part of the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), helps alleviate wildlife damage to agricultural, urban, and natural resources. WS also addresses wildlife threats to public health and safety and protects endangered and threatened species from predators.

## Funding of WS

WS receives Federal funds to conduct its work; however, cost-sharing is an integral part of the WS program. When other Federal or State agencies, counties, or private organizations request assistance from WS, they become cooperators and contribute money to carry out the work. In some States, specific WS activities are completely funded by cooperators.

#### **Prevention of Damage**

The most challenging task in determining the savings resulting from WS activities is predicting how much more damage animals would have caused if control methods had not been used. There is no single cost–benefit ratio for WS activities because they vary so much from one circumstance to the next. For any given damage situation, some control methods would be more cost effective than

others, but cost is only one of many variables considered in choosing among control strategies. Other criteria include the nature of the damage problems, practicality of control measures, environmental and social or political considerations, and regulatory constraints. The environmental protection afforded by the National Environmental Policy Act, the Federal Insecticide, Fungicide and Rodenticide Act, the Endangered Species Act, and other regulatory statutes has resulted in significant benefits to our environment but has also increased the cost of wildlife damage control.

### **Effective WS Projects**

- A farmer in Washington requested WS assistance after thousands of Canada geese congregated on his 43-acre field of carrots and began eating his crop, which had a potential market value of more than \$7,000 an acre. WS biologists recommended the use of noise-making devices and other scare tactics, and these methods were successful in frightening the geese and keeping them out of his field.
- A mountain lion that killed a dog and attacked another dog and a mule in Colorado was captured by a WS specialist and officials from the Colorado Division of Wildlife. The lion was released unharmed in a remote site about 165 miles from the community where the attacks occurred.
- A beaver-control project conducted by WS employees in Mississippi cost about \$11,000 and saved an estimated \$198,600 in timber resources. Another such project in Kentucky and Tennessee cost about \$55,000 during an 18-month period and saved an estimated \$1.5 million in timber resources in those States.



Beaver

- From a coyote predation study conducted for 3 years on an 8,000-acre sheep ranch in Montana, U.S. Department of the Interior researchers found that a significant reduction in sheep losses occurred when predators were controlled. During the first 2 years of the study, coyote damage was not controlled, and coyotes killed an average of 404 sheep each year. During the third year, predators were removed on the ranch and within a 1-mile buffer zone. Damage-control efforts cut the loss to 227 sheep—a 44-percent reduction in deaths from predation.
- Data from the Idaho WS program in 1995 were analyzed and showed a benefit-to-cost ratio of 3 to 1 regarding efforts to protect sheep in southern Idaho. In other words, \$3 worth of sheep were saved for every \$1 spent on efforts to protect them. A similar benefit-to-cost ratio was found in a 3-year study conducted by the Berryman Institute at Utah State University.

### **Indirect Costs and Nonmonetary Benefits**

Indirect costs associated with wildlife damage are not always taken into consideration in standard cost-effectiveness studies of the WS program. For example, in areas where sheep or goats could better utilize the rangeland, high lamb and kid predation losses may mandate the grazing of cattle instead.

Many benefits of WS cannot be measured monetarily. To help protect human lives, WS employees routinely train and assist airport officials on techniques to reduce collisions between wildlife and aircraft. WS projects also ensure protection of human health by removing animals that harbor diseases transmissible to people, such as rabies and histoplasmosis. In addition, WS helps protect many threatened or endangered species from predation, including the California least tern and light-footed clapper rail, the San Joaquin kit fox, the Aleutian Canada goose, the Louisiana pearlshell (mussel), and two species of endangered sea turtles.

#### Additional Information

You may obtain more information about WS' wildlife services from any State APHIS, WS office. For the address and telephone number in your area, call the WS Operational Support Staff at (301) 734–7921.